



March 26, 1991

Utah Bureau of Water Pollution Control
288 North 1460 West
P.O. Box 16690
Salt Lake City, UT 84116-0690

Attention: Mr. Don Ostler, Director

Reference: Emergency Pond #2 Construction Details
Goldstrike Mine

Dear Mr. Ostler:

Per Tenneco Minerals' March 22, 1991 phone conversations with Kiran Bhayani of the Bureau, this letter provides the construction details of the second emergency storage pond that was installed at the Goldstrike Mine on March 22-24. Also enclosed is a construction diagram of the pond.

Background

On March 19 - 22, 1991, the Goldstrike mine received a total of 1.1 inches of precipitation. On March 22, 1991, the remaining capacity in the three process ponds and the first emergency storage pond was approximately 1.2 million gallons. Tenneco Minerals projected the 1.1 inches of moisture to add approximately 500,000 gallons of water to the existing inventory. In addition, the National Weather Service was forecasting another storm for this area on March 25 and 26, 1991.

In anticipation of the predicted storm events and others that may follow, it was decided on March 22, 1991 to take the additional step of construction of a second emergency storage pond on the existing permitted heap leach pad 1, cells 5 and 6, so solution from the barren pond could be pumped up to the new pond in the event of an emergency to prevent a discharge to the sediment pond. The new pond will receive solution from the barren pond on an as needed emergency basis.

On March 24, 1991, the new pond system was tested to ensure that the system would be functional and that it would pump the necessary volume of solution to the new pond should it rain or snow. During the test, water from the barren pond was pumped to the new pond to anchor the liner.

Tenneco Minerals

MR. DON OSTLER, DIRECTOR
EMERGENCY POND #2 CONSTRUCTION DETAILS

DATE: 03/26/91
PAGE TWO

Pond Construction and Design

The pond was constructed on the top of cells 5 and 6 on heap leach pad 1. The ore underlying the emergency storage pond has been leached several times. This leaching has resulted in densifying the material by lubricating the particles and adding weight. Therefore, the settlement due to the weight of the water stored in the pond should be minimal.

The capacity of the second emergency storage pond is 1,000,000 gallons. The size of the pond was selected to store the maximum amount of water on the heap with a depth of 15 feet and an exterior slope that did not exceed the embankment design slope. The interior slope was selected at two and one-half horizontal to one vertical based on ease of construction. A pond liner composed of two layers of 16 ounce filter fabric cushion and 60 mil HDPE was then installed.


Construction of the pond was achieved by excavating with two dozers and a large backhoe. The top elevation of the pond is approximately five feet higher than the original heap surface. Compactive effort was applied to the fill portion of the pond by the action of the dozers. The surface of the pond was smoothed, to the extent possible, by the dozers and the backhoe with the near saturated ore material.

Serrot Corporation personnel placed the filter fabric and the HDPE liner. Inspection of the liner placement was made by Mr. Toland and Tenneco Minerals. Peel testing of seams and patch welds was done at the site by the machine operators. A limited amount of air testing and vacuum testing was done to spot check the seams and patches. All seams and patches were visually inspected by Mr. George Toland, Tenneco Minerals, and designated Serrot personnel.

If you have any questions on the above or the enclosed, please call me at 574-3164.

Sincerely,

TENNECO MINERALS COMPANY


Ken A. Kluksdahl
Mine Manager

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Enclosure: